PCT

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : G06F 17/30	A1	(11) International Publication Number: **WO 00/49527**
		(43) International Publication Date: 24 August 2000 (24.08.00)

(21) International Application Number: PCT/GB00/00492

(22) International Filing Date: 16 February 2000 (16.02.00)

(30) Priority Data:
9903697.2   19 February 1999 (19.02.99)   GB

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(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: MATCHING ENGINE

(57) Abstract

A method of identifying the best matches or sets of matches between a query item and an item or items from a data set. The method includes the steps of: (i) providing a data representation for each item in the data set; (ii) providing a query representation of the query item; (iii) defining a transformation space; (iv) for each of a number of regions spanning the entire transformation space, determining an upper bound to the probability of a match between the query representation and a data representation under any transformation in the region; (v) determining a threshold probability; (vi) comparing the upper probability bound of each region with the threshold probability; and (vii) determining regions having an upper probability bound greater than the threshold probability, so as to identify solution regions.